Setting the Stage: TATRC's Portfolio

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CREATING THE FUTURE FOR MILITARY MEDICINE

Report Documentation Page

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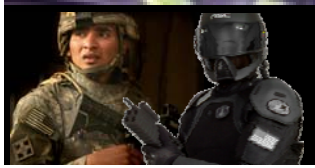
Telemedicine and Advanced Technology Research Center (TATRC)

Mission

Execute a congressional special interest program of medical science and engineering technology research that maximizes benefits to military medicine

Vision

Be the model of government enablement of technology transfer to use



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Key Objectives

Explore new science and engineering options
for the DoD in advance of core funded medical research programs

Lead and conduct DoD research in e-Health
in core competencies of computational biology and clinical informatics

Bridge gaps and help researchers find success
in starting innovative research; transition of discovery to applications; and integration of products, systems, and standards to DoD needs

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TATRC Product Lines & Core Competencies

TATRC CORE COMPETENCIES

Medical Robotics

Health Information Technologies

Medical Imaging Technologies

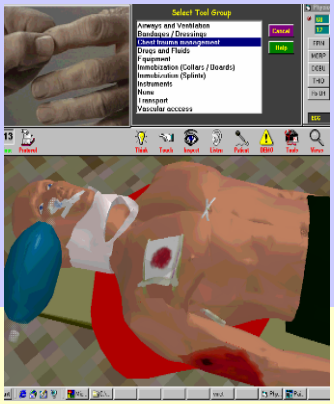
Advanced Prosthetics & Human Performance

- Neurosciences
- Biomaterials & Nanomedicine
- Regenerative Medicine
- Disease Models with Dual Use Applications
- Genomics/ Proteomics

Computational Biology

Biomonitoring Technologies

Simulation and Training Technology



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Biomonitoring Technologies – Personal Health Monitoring

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Personal health monitoring enables

Continuity of health & medical situational awareness

- in the field for effective management/utilization of operational forces and resources to meet mission requirements for attacks or for medical evacuation
- at hospitals for improved medical care management of staff and resources
- at home to help patient resume normalcy without unnecessary delays, integrate back to family and community with knowledge and comfort that help is just minutes away

Challenges

In the field, at hospitals, or at home

- know what variables to measure (e.g. vital signs, functions, or biomarkers)
  - modify / develop tools, know its limitations
  - analyze / translate data (e.g. making sense of the data) into useful tools (e.g. decision-making for preventions, countermeasures, or interventions)
- accuracy and reliability of measurement / data
- make it “invisible” (i.e. wireless, minimal, unobtrusive, comfortable)
- develop smart network for transmitting information to a central location / command; this includes device interoperability
- building a readily accessible comprehensive e-health/medical record
- continuous monitoring is key to averting crises

Strategies

Identify projects for transition

Work with TATRC research partners to help advance research / product with demonstrated results or proven concepts to move forward… commercial partners or other investment vehicles

Invest in high risk, high payoff projects, and fill gap

Provide opportunities to help investigators with great ideas to test highly innovative ideas as well as bring in investigators and/or relevant research areas to help bridge currently funded CSI programs

Integrate information for effective program management

Work with multiple organizations inside/outside DoD to exchange information, collaborate with the aim to create a more integrated program (i.e. TMIP-J, USARIEM, USAISR, TRADOC, VA, NIBIB, DARPA, NIST, etc.)

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Convergence of Effort

USAMRMC

Army & Navy

- Infectious Disease
- Combat Casualty Care
- Military Operational Medicine
- Naval Health Research Center
- Health Facilities Planning Agency

Congressional Special Interest (CSI) Programs

SBIR/STTR

AMEDD Advanced Medical Technology Initiative (AAMTI)

Reimbursables and Grants

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Other DOD Programs

- DARPA
- TMA
- TMIP

Products & Systems for the Warfighter

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Questions…

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